According to general testimony, the diminution of late years in the numbers of the ducks is very marked. Mr. Bassett, however, sees and takes in Nippenickett a larger number and greater variety of ducks of late years than ever before. The causes of the change in this case are not known, and it may be left to the reader to speculate upon them.

In all there are 28 species of ducks attributed to Massachusetts. We of course do not consider the Labrador and St. Domingo Ducks as occurring in the State. All of these 28 have occurred within comparatively recent years in Plymouth County. Twenty-four of them have been taken on fresh water. Barrow's Goldeneye would doubtless be added to this list, were the facts known, leaving only three of the ducks which, when with us, are strictly maritime, the two Eiders and the Harlequin. Of the 28 I should class seven only as decidedly rare,—the Ring-neck, Gadwall, Shoveller, Harlequin, King Eider, Barrow's Goldeneye, and Canvas-back.

JOHN ABBOT'S DRAWINGS OF THE BIRDS OF GEORGIA.

BY WALTER FAXON.

JOHN ABBOT'S illustrations of the Lepidoptera of Georgia, edited by Sir James Edward Smith and published in two folio volumes at London in 1797, have made his name familiar to entomologists, but few ornithologists are aware that Abbot, during his sojourn in Georgia, made a series of colored drawings of the birds of that State. The Boston Society of Natural History has long possessed many of Abbot's unpublished drawings of Georgian insects¹, and there has lately come to light, in the

¹These are bound in two volumes, one comprising 174 plates given to the Society by Asa Gray who received them from J. E. Gray of the British Museum, the other comprising 193 plates purchased of Dr. Oemler of Georgia.

library of the Society, a set of 181 water-color drawings of birds. This series of plates is accompanied by the following entry in the handwriting of the late Miss L. Foster¹: "Drawings of the Birds of Georgia, by John Abbot," but no record of how or when the collection came into the possession of the Society has yet been found. The plates are classified and numbered by Abbot himself from 1 up to 200, but nineteen are lost from the set. The names of the birds appear in most cases at the bottom of each plate, written in pencil the nomenclature being chiefly that of Wilson. One of the plates alone bears the inscription in ink, "J. Abbot delin. ad vivum, 1810," but the character of the drawings themselves as well as the considerable amount of Abbot's well known autograph on the backs of the plates leaves no doubt as to their origin.

The notes on the backs of the plates consist of memoranda in pencil relating to the dimensions of the birds drawn, often followed by the date (day of the month, but in no case the year) and notes on the colors and on the time of arrival of migratory species. These memoranda have in most cases been erased and replaced in many instances by the names of the birds in the writing of Dr. T. M. Brewer, through whose hands the whole lot of drawings must have passed. Fortunately, Abbot's notes can still be deciphered with time and patience.

We are chiefly indebted to Swainson² and S. H. Scudder³ for the few facts that are known concerning Abbot's life. Coming to America in the interest of several of the leading entomologists of England, probably about the year 1790, he soon settled in the State of Georgia, where he remained till as late as 1810. Here he mainly devoted himself to collecting, rearing, and drawing the insects of the State, together with the plants upon which they feed. The drawings published by Smith and those in the possession of the Boston Society of

¹ Miss Foster was Assistant in the Library from 1868 to 1885.

² Taxidermy, with the Biography of Zoölogists, and Notices of their Works. By William Swainson. Lardners's Cabinet Cyclopædia, Vol. CXXVI, 1840.

John Abbot, the Aurelian. By Samuel H. Scudder. Canadian Entomologist, XX, 1888, 150.

Natural History form but a small part of what he produced. Seventeen bound volumes of unpublished entomological drawings in the British Museum bear witness to his zeal and activity.

The place of Abbot's residence during his stay in Georgia has been barely rescued from oblivion by the late Col. Charles C. Jones ² the historian of the State. From 1797 to 1847 the county seat of Screven Co., Ga. was the little town of Jacksonborough, situate some sixty or seventy miles N N W of Savannah and a few miles west of the Savannah River. It was here, according to Colonel Jones, that Abbot lived and wrought. After the removal of the public buildings from Jacksonborough to Sylvania in 1847, the old town was abandoned, its dwellings quickly fell to decay, and now a few shards of common pottery scattered over the surface of the soil alone serve to mark the place where it once stood.

From this region it is probable that most of the birds portrayed by Abbot came. Yet the considerable number of shore and sea birds included amongst the drawings would seem to show that the artist had recourse to the sea for some of his material.

Nineteen plates, as before said, are lost from the series. But if the remaining plates be arranged according to the numbers put upon them when the set was still unbroken their sequence will suggest the subjects of many of the missing numbers. Thus it is pretty safe to assume that Plate 16 was the male Red-winged Blackbird, 23 the Baltimore Oriole, 27 the male Boat-tailed Grackle, 29 the Purple Grackle, 31 the Yellow-billed Cuckoo, 44 the male Southern Hairy Woodpecker, 80 the Nonpard, and so following. In this way we can, with some approach to precision, estimate the number of species included in the original set of 200 plates at about 160,— thirteen species being allowed for the nineteen missing numbers. A goodly number this, when one considers the period when the work was accomplished, the remoteness of the artist's residence from the sea, and the fact that ornithological pursuits were aside from the main purpose of his visit to

¹ See W. F. Kirby, in Can. Entomol., XX, 1888, 230.

² The Dead Towns of Georgia. By Charles C. Jones. p. 240. Coll. Georgia Hist. Soc., IV, 1878.

America. Some sixty years before Abbot came to Georgia, Mark Catesby was similarly engaged in illustrating the local fauna on the other side of the Savannah River, with special reference to the birds. Although Catesby had the advantage of a year's residence on the sea-board before he went up the Savannah River to live at Fort Moore, the number of Carolinian birds described and figured by him amounts to only 90 against Abbot's 160. Yet Catesby followed the pursuit with such ardor that he did not hesitate to affirm that few birds except aquatic species could have escaped him.¹

On looking through the Abbot bird-portraits several arrest the eye from their historic interest. Plate 68 is a good representation of Swainson's Warbler, drawn at least a quarter of a century before this species was described and named by Audubon. On the reverse of the plate is the following autograph note by Abbot: "L. 6. May 8. Swamp.— Swamp Worm-eater."

Swainson's Warbler was first described and figured by Audubon in 1834,² from specimens secured by John Bachman near Charleston, S. C., in 1832. Its second introduction to public notice was in the rôle of a bird of Georgia, in White's list of Georgia birds published by Alexander Gerhardt in 1855.³ The next record likewise relates to a Georgia specimen from Liberty County.⁴ But little was known concerning the habits of Swainson's Warbler until 1885, when Mr. William Brewster published a narrative of his experience in the bird's haunts near Charleston in the summer of 1884.⁵ It is now known to be a summer visitor to certain parts of North and South Carolina, Georgia, Florida, Alabama, Louisiana, Texas, Southeastern Missouri, and the Dismal Swamp of Virginia.

¹The following species found among the Abbot drawings are not included in White's very full list of the birds of Georgia, published in 'Naumannia,' 1855, 382: Nyctea nyctea, Loxia lencoptera, Ammodramus leconteii, Otocoris alpestris, Dendroica tigrina. Grus mexicana, Guara rubra, Totanus melanoleucus, Porzana carolina, Larus delawarensis.

² Orn. Biog., II, 563.

³ Naumannia, 1855, 382.

⁴Baird, Birds of North America, 1858, p. 253.

⁵ Auk, II, 1885, 65.

Plate 97.—Leconte's Sparrow (Ammodramus leconteii). This bird also was known to Abbot and drawn by him about forty years before it was described by Audubon. The next observer after Abbot who had the luck to meet with it was Maximilian, Prince of Wied, during his journey up the Missouri River in 1833. It was not until 1858, however, fourteen years after the species was described by Audubon, that Maximilian's account was published.1 After a careful description of the specimen obtained, the Prince adds the following story of its capture, which gives one such a vivid idea of the elusive habits of the bird as to merit quotation: "I obtained a single specimen of this northern species near the middle course of the Missouri. The way in which the little bird crept about, just like a mouse, in the grass and under the bushes was remarkable. In fact, several of our party mistook it for a mouse. It was surrounded; yet, though unable to escape, it could not be forced to fly. It slipped quickly from one cover to another, while we all strove to catch it. When this was finally accomplished, I found that the supposed mouse was a little bird unknown to me."2

Ten years after Maximilian's capture of this specimen Audubon rediscovered the species on the upper Missouri and for the first time described and figured it in the seventh volume of the 'Birds of America,' p. 338, 1844.³ A quarter of a century then elapsed without further tidings of Leconte's Sparrow. Audubon's type was lost, Maximilian's was on the other side of the Atlantic, and the record of it overlooked. Certain ornithologists even began to doubt the existence of Leconte's Sparrow. Then a single specimen (a very bad one) came to light in the Smithsonian Institution,

¹ Journal für Ornithologie, VI, 1858, 340.

² This specimen is now with the Maximilian collection in the American Museum of Natural History of New York, according to Mr. J. A. Allen (Auk, III, 1886, 490), who does not appear to be aware that it was described by Maximilian in 1858.

³ Audubon's type specimen was shot on the 24th of May by Mr J. G. Bell of New York, who accompanied Audubon on his Yellowstone Journey. Maximilian, through a curious misunderstanding of Audubon's narrative, says that Ammodramus leconteii has been taken in the State of New York in the month of May!

obtained in Washington Co., Texas, by Dr. Lincecum in 1869, but not recorded till 1872, in Coues's 'Key to North American Birds,' p. 137. Soon after, Dr. Coues himself had the pleasure of securing several examples of the discredited species in Dakota, in 1873. But not until 1878, about seventy years after Abbot drew the portrait of Leconte's Sparrow in Georgia, was this bird rediscovered east of the Mississippi — in winter-quarters at Coosada. Ala.,—by N. C. Brown. Finally, in 1881, Mr. C. J. Maynard detected it in Florida, and Mr. L. M. Loomis in Chester Co., South Carolina.

Further on we come to No. 161, the Scarlet Ibis. Most of the records of the Scarlet Ibis as a bird of the United States rest upon rather questionable evidence. Wilson⁵ supposed that it was found in the extreme southern part of Carolina, and in Georgia and Florida. The best Audubon could do was to get a glimpse of three, flying over the tops of the trees near Bayou Sara, La., in July, 1821.⁶ A fragment of a specimen was examined by Dr. Coues on the Rio Grande at Los Pinos, New Mexico, in June, 1864.⁷ One has been recorded as shot in Custer Co., Colorado, in May, 1876.⁸ Mr. Brewster⁹ found an old faded and moth-eaten specimen in the museum of the College of Charleston, labelled "Florida." Finally, to end this strange, if not very eventful history, Mr. W. E. D. Scottl¹⁰ says that one was seen in Florida in 1888 by a plume-hunter in whom he has perfect confidence.¹¹

¹ Amer. Nat. VII, 1873, 748. Birds of the Northwest, 1874, 134.

² Bull, Nuttall Orn, Club, IV, 1879, 8.

³ Bull. Nuttall Orn. Club, VII, 1882, 121.

⁴ Bull, Nuttall Orn. Club, VII, 1882, 54.

⁵American Ornithology, VIII, 1814, 41.

⁶ Orn. Biog., V, 1839, 62.

⁷ Key to North American Birds, 1872, 264; id., 1887, 651.

⁵ Auk, XI, 1894, 324.

⁹ Bull. Nuttall Orn. Club, VIII, 1883, 185.

¹⁰ Auk, VI, 1889, 15.

¹¹ H. B. Bailey, in 'Forest and Stream Bird Notes,' 1881, p. 78, indexes under *Ibis rubra* a note in 'Forest and Stream,' III, 58, relating to some "Pink Curlews" killed by sportsmen at St. Augustine, Fla., in 1874. These "Pink Curlews" were without doubt Roseate Spoonbills.

The presence of the Scarlet Ibis among Abbot's drawings of the birds of Georgia establishes, to my mind, a better record for the United States than some of those above mentioned. It is highly improbable that he received a specimen from Central or South America and still more unlikely that he would have interpolated a foreign bird in this series of drawings. For we know from the whole tenor of his work in Georgia that it was his purpose to illustrate the local fauna.

Of the rarer birds for the latitude of Georgia that are included in the collection may be mentioned the Snowy Owl, the White-winged Crossbill, and the Horned Lark (*Otocoris alpestris*). The White-winged Crossbill has never to my knowledge been reported from so far south as Georgia. The arctic race of the Horned Lark, athough noted by Catesby¹ as frequenting the sand-hills along the shore of South Carolina in winter, has within a few years been recorded as a novelty from that coast.²

A very remarkable Woodpecker is represented on Plate 48. It is like the male *Dryobates borealis* except that the red 'cockades' are enlarged so as to form one continuous bright red patch, extending across the nape, as in *D. nuttallii*, *D. villosus*, etc. The normal male and female *D. borealis* are figured on Plates 46 and 47 under Wilson's name of *Picus querulus*. Plate 48 is inscribed "*Picus* n. s.?" Both Mr. Brewster and Mr. Ridgway assure me that they have never seen the like of this bird. I take it to be a 'sport' of *Dryobates borealis*,— the manifestation of a tendency normally latent in this species, but commonly expressed in allied members of the genus. It is the converse of the condition sometimes seen in *D. villosus*, when the red occipital band is broken into a pair of spots,—right and left.

With regard to the period when the drawings were made, we have no evidence beyond the term of Abbot's residence in Georgia, the date 1810 in the legend under the figure of the Bald Eagle, and the manufacturer's water-marks which appear on the paper used. According to Mr. Scudder, Abbot came

¹ Nat. Hist. Carolina, I, 1731, 32, Pl. XXXII.

² A. T. Wayne, Auk, X, 1893, 205.

to America about 1790 and returned to England about 1810. This accords with the water-mark dates, which include various years from 1791 to 1810 inclusive. The extreme dates occur on the insect plates in the Boston Society of Natural History. The water-marks in the set of bird drawings are three: "J. Whatman, 1801" (22 plates), "Edmeads and Pine, 1802" (22 plates), and "S C, 1804" (8 plates). It is pretty certain, therefore, that the birds were drawn between 1800 and 1810. The final arrangement, enumeration, and identification of the figures were somewhat later, as is proved by citations of the sixth volume of Wilson's Ornithology, which was not published till 1812.

From an artistic point of view, these plates, although not so exquisitely elaborated as Abbot's insect drawings, are admirable. While the accessories are rather quaint and old-fashioned, the birds themselves, though unequal in finish, are for the most part accurately drawn and skilfully colored. In the simplicity and even monotony of the postures they recall Wilson's work rather than the more spirited figures of Audubon. In many ways these drawings evince Abbot's remarkable keenness of observation. Sexual and seasonal phases of plumage, so diverse as to be mistaken for specific differences by the earlier ornithologists, were understood by Abbot. Thus, on Plate 112 the male Black-throated Blue Warbler is joined with his sober-suited mate, although Wilson and many of his followers put them asunder. In other cases, nice subspecific distinctions, not recognized till lately by ornithologists, are unmistakably indicated in these drawings. Doubtless Abbot supposed them to be diversities of sex or age, but they bear witness all the same to his close discrimination. In only one instance is the artist guilty of a flagrant error. Plate 171 represents a Sanderling with a hind toe! It is inconceivable to anyone who has carefully studied the whole collection of drawings that Abbot himself was responsible for such a blunder. Swainson says that Abbot found it expedient to employ one or two assistant artists, whose copies he retouched. I am disposed to think that an assistant living on the sea-coast made color sketches of some of the shore and sea birds and that Abbot reproduced these

sketches. It was Abbot's wont to note the dimensions of the birds that he drew from life, in the form of memoranda entered on the reverse of the plates. This is done for most of the land birds, but it is a noteworthy fact that very few of the portraits of sea birds are so endorsed. Whoever drew the Sanderling decreed that this bird, being a Sandpiper, should not be liable, like the three-toed Waders in Gilbert White's speculation, to "perpetual vacillations"!

If Abbot—a contemporary of Wilson and Vieillot—had secured the speedy publication of this remarkable collection of drawings, with a suitable accompaniment of text, his name would be famous in the annals of American ornithology. "Many are poets who have never penned their inspiration." So, in the light of the work here reviewed, Abbot appears to have been an ornithologist—but without the name.

A catalogue of these drawings is appended — Abbot's 'local list,' made during the opening decade of the century now drawing to a close.

PLATE

- 1. Cathartes aura (Linn.).
- 2. Catharista atrata (Bartr.).
- 3. Haliwetus leucocephalus (*Linn.*). Full plumage.
 - 4. Buteo lineatus (Gmel.).
 - 5. " " Young.
 - 6. Accipiter cooperii (Bonap.).
- 7. Circus hudsonius (*Linn.*). Male in winter plumage.
 - 8. Falco sparverius. Linn. Male.
 - 9. [Missing.]
 - 10. Nyctea nyctea (Linn.).
- 11. Syrnium nebulosum alleni *Ridgw*.
 - 12. [Missing.]
 - 13. "
 - 14. Corvus americanus Aud.
 - 15. Cyanocitta cristata (Linn.).
 - 6. [Missing.]
- τ₇. Agelaius phœniceus (*Liun.*). Female.

- 18. Agelaius phæniceus (*Linn.*). Young male.
- 19. Agelaius phæniceus (*Liun.*). Albino.
- 20. Scolecophagus carolinus (Mull.) Spring plumage.
- 21. Scolecophagus carolinus (Mull.). Autumn plumage.
 - 22. Molothrus ater (Bodd.). Male.
 - 23. [Missing.]
- 24. Icterus spurius (*Linn.*). Adult male.
- 25. Icterus spurius (*Liun.*). Female.
- 26. Icterus spurius (*Linn.*). Male of second year.
 - 27. [Missing.]
- 28. Quiscalus major *Vieill*. Female.
 - 29. [Missing.]
 - 30.
 - 31.

- 32. Coccyzus erythrophthalmus (Wils.).
- 33. Campephilus principalis (*Linn.*). Male.
- 34. Campephilus principalis (*Linn.*). Female.
- 35. Ceophlœus pileatus (*Linn*.). Male.
- 36. Ceophlœus pileatus (*Linn.*). Female.
- 37. Colaptes auratus (*Linn.*). Male.
- 38. Colaptes auratus (*Linn.*). Fe-male.
- 39. Melanerpes carolinus (*Linn.*). Male.
- 40. Melanerpes carolinus (*Linn.*). Female.
- 41. Melanerpes erythrocephalus (Linn.).
- 42. Sphyrapicus varius (Linn.). Male.
- 43. Sphyrapicus varius (Linn.). Female.
 - 44. [Missing.]
- 45. Dryobates villosus audubonii (Swains.). Female.
- 46. Dryobates borealis (Vicill.). Male.
- 47. Dryobates borealis (Vicill.). Female.
- 48. Dryobates borealis (Vicill.)? Male.
- 49. Dryobates pubescens (*Linn.*). Male.
- 50. Dryobates pubescens (*Linn.*). Female.
 - 51. [Missing.]
 - 52. Sitta carolinensis Lath.
 - 53. " canadensis Linn.
 - 54. " pusilla Lath.
- 55. Certhia familiaris americana (Bonap.).
- 56. Trochilus colubris *Linn*. Male and female.
 - 57. Sturnella magna (Linn.).

- 58. Mimus polyglottos (Linn.).
- 59. Harporhynchus rufus (Linn.).
- 60. Turdus mustelinus Gmel.
- 61. " fuscescens Steph.
- 62. " aonalaschkæ pallasii (*Cab.*).
 - 63. Seiurus aurocapillus (Linn.).
 - 64. "noveboracensis (Gmel.).
- Two figs. Upper one S. n. notabilis *Ridgav*.
- 65. Merula migratoria (*Linn.*). Male.
- 66. Merula migratoria (*Linn.*). Female.
- 67. Helmitherus vermivorus (*Gmel.*).
 - 68. Helinaia swainsonii Aud.
 - 69. Ampelis cedrorum (Vicill.).
- 70. Guiraca cærulea (*Linn.*). Male.
- 71. Guiraca cærulea (*Linn.*).
- 72. Cardinalis cardinalis (*Linn.*). Male.
- 73. Cardinalis cardinalis (*Linn.*). Female.
 - 74. Loxia leucoptera Gmel. Male.
- 75. Dolichonyx oryzivorus (*Linn.*). Male.
- 76. Dolichonyx oryzivorus (*Linn*.). Female.
- 77. Pipilo erythrophthalmus (*Linn*.). Male.
- 78. Pipilo erythrophthalmus (*Linn.*). Female.
- 79. Passerina cyanea (Linn.). Male and female.
 - So. [Missing.]
- 81. Junco hyemalis (Linn).
- Male and female or male in winter.
- 82. Spinus tristis (*Linn.*). Male and female.
- 83. Passerina cyanea (Linn.).
- 84. Piranga rubra (Linn.). Male.
- 85. " " Female.

86. Piranga erythromelas Vieill. Male.

87. Carpodacus purpureus (*Gmel.*). Male.

88. Carpodacus purpureus (*Gmel.*). Female.

89. Passerella iliaca (Merr.). Two figs.

90. Poocætes gramineus (Gmel.).

91. Zonotrichia albicollis (*Gmel.*). Adult and immature.

92. Passerculus sandwichensis savanna (Wils.). Two figs.

93. Melospiza fasciata (Gmel.).

94. [Missing.]

95.

96. '

97. Ammodramus leconteii(Aud.).

98. Spizella socialis (Wils.). Adult and immature.

99. Spizella pusilla (Wils.). Two figs.

100. [Missing.]

101. Galeoscoptes carolinensis (Linn.).

102. Contopus virens (Linn.).

103. Vireo olivaceus (Linn.).

104. " solitarius (Wils.).

105. " noveboracensis(*Gmel.*), Two figs. Lower one looks like V. n. maynardi, *Brewst*.

106. Setophaga ruticilla (Linn.). Male and female.

107. Icteria virens (Linn.).

108. Otocoris alpestris (Linn.).

109. Anthus pensilvanicus (Lath.).

110. Sialia sialis (Linn.). Male.

111. " " (*Linn.*). Female.

112. Dendroica cærulescens (*Gmel.*). Male and female.

113. Dendroica vigorsii (And.). Male and female.

114. Dendroica palmarum (*Gmel.*) and D. p. hypochrysea *Ridgw*.

115. Dendroica tigrina (*Gmel.*). Male in autumnal plumage.

116. Dendroica coronata (*Linn.*). Two figs.

117. Dendroica striata (Forst.). Male in spring and young first autumn.

118. Dendroica tigrina (Gmel.). Female.

119. Silvania mitrata (*Gmel.*). Male and female.

120. Geothlypis trichas (Linn.).

121. Protonotaria citrea (Bodd.). Two figs.

122. Dendroica æstiva (*Gmel.*). Male and female.

123. Dendroica discolor (Vieill.). Male and female.

124. Compsothlypis americana (*Linn*.). Male and female.

125. Dendroica dominica (*Linn.*). Male and young first autumn.

126. Thryothorus ludovicianus (Lath). Two figs.

127. Troglodytes aëdon Vieill.

128. Cistothorus stellaris (Licht.).

129. Regulus calendula (Linn.). Male and female.

130. Regulus satrapa *Licht*. Male and female.

131. Mniotilta varia (*Linn.*). Two figs.

132. Parus bicolor Linn.

133 " carolinensis And.

134. Polioptila cærulea (*Linn.*). Male and female.

135. Progne subis (Linn.). Male.

136. " " Female.

137. Chelidon erythrogastra (Bodd.).

138. [Missing.]

139. Chaetura pelagica (Linn.).

140. Stelgidopteryx serripennis (Aud.)?

141. Antrostomus carolinensis (Gmel.). Male.

142. Chordeiles virginianus (Gmel.). Male.

143. Ectopistes migratorius (*Linn*.). Male.

144. Zenaidura macroura (*Linn.*). Male.

145. Columbigallina passerina terrestris *Chapm*. Male.

146. Colinus virginianus (*Linn.*).

147. Grus mexicana (Müll.).

148. Botaurus lentiginosus (Montag.).

149. Nycticorax violaceus (Linn).

150. "Young.

151. Ardea egretta Gmel.

152. Nycticorax nycticorax nævius (Bodd.). Adult.

53. Ardea tricolor ruficollis (Gosse). Adult.

154. Ardea tricolor ruficollis (Gosse). Young.

155. Ardea cærulea *Linn*. Blue phase.

156. Ardea cærulea *Linn*. White phase.

157. Ardea virescens Linn.

158. " " "

159. Guara alba (Linn.). Young.

160. " " Adult.

161. " rubra (Linn.). Adult. 162. Numenius longirostris Wils.

163. Limosa fedoa (Linn.).

Young.

164. Gallinago delicata (Ord).

165. Philohela minor (Gmel.).

166. Symphemia semipalmata inornata *Brewst*. Winter plumage.

167. Totanus melanoleucus (*Gmel.*).

168. Totanus flavipes (Gmel.).

169. [Missing.]

170. Totanus solitarius (Wils.).

171. Calidris arenaria (*Linn.*). Winter plumage.

172. Actitis macularia (*Linn.*). Adult.

173. Actitis macularia (Linn.). Young.

174. Tringa minutilla Vieill.

175. Ægialitis vocifera (Linn.).

176. Hæmatopus palliatus Temm.

177. Rallus elegans And.

178. Porzana carolina (*Linn.*). Young.

179. Porzana carolina (*Linn.*). Adult.

180. Ionornis martinica (Linn.).

181. Gallinula galeata (Licht.).

182. Rynchops nigra Linn.

183. Hydrochelidon nigra surinamensis (*Gmel.*). Young.

184. Podilymbus podiceps(Linn.). Winter plumage.

185. Larus delawarensis Ord. Young.

186. Larus atricilla Linn. Winter plumage.

187. Gelochelidon nilotica (*Hasselg*.).

188. Merganser serrator (*Linn.*). Male.

189. [Missing.]

190. Lophodytes cucullatus (Linn.). Male.

191. Lophodytes cucullatus (*Linn.*). Female.

192. Spatula clypeata (Linn.). Male.

193. Aix sponsa (Linn.). Male.

194. Aythya collaris (*Donov.*). Male.

195. Aythya affinis (Eyt.). Male.

196. " " Female.

197. Clangula clangula americana (Bonap.). Female.

198. Charitonetta albeola(*Linn.*). Male.

199. Charitonetta albeola (*Linn.*). Female.

200. Anas carolinensis *Gmel*. Male.